Exploring Aeronautics			
2007 Mathematics			
Grade and Course Level Expectations			
Missouri Mathematics			
Grade 5			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	MO	MA.5.A.1.B.1	represent and analyze patterns using words, tables and graphs
Fundamentals of Aeronautics (145-176)	MO	MA.5.A.3.A.1	model problem situations and draw conclusions, using representations such as graphs, tables or number sentence
Fundamentals of Aeronautics (145-176)	MO	MA.5.M.1.B.1	identify the equivalent weights and equivalent capacities within a system of measurement
Fundamentals of Aeronautics (145-176)	MO	MA.5.D.1.A.1	describe methods to collect, organize and represent categorical and numerical data
Fundamentals of Aeronautics (145-176)	MO	MA.5.D.1.C.1	describe methods to collect, organize and represent categorical and numerical data
Wings(177-208)	MO	MA.5.M.1.A.1	identify and justify the unit of measure for area (customary and metric)
Science of Flight	MO	MA.5.A.3.A.1	model problem situations and draw conclusions, using representations such as graphs, tables or number sentence
Science of Flight	MO	MA.5.M.1.B.1	identify the equivalent weights and equivalent capacities within a system of measurement
Science of Flight	MO	MA.5.D.1.A.1	describe methods to collect, organize and represent categorical and numerical data
Science of Flight	MO	MA.5.D.1.C.1	describe methods to collect, organize and represent categorical and numerical data
Integrating with Aeronautics	MO	MA.5.N.3.D.1	estimate and justify products, and quotients of whole numbers and sums differences of decimals and fractions
Integrating with Aeronautics	MO	MA.5.A.1.B.1	represent and analyze patterns using words, tables and graphs
Integrating with Aeronautics	MO	MA.5.A.2.A.1	using all operations, represent a mathematical situation as an expression or number sentence using a letter or symbol
Integrating with Aeronautics	MO	MA.5.A.3.A.1	model problem situations and draw conclusions, using representations such as graphs, tables or number sentence
Integrating with Aeronautics	MO	MA.5.G.4.A.1	given a net of a prism or cylinder, identify the 3-dimensional shape
Intro to Aeronautics (109-123)	MO	MA.5.D.1.A.1	describe methods to collect, organize and represent categorical and numerical data
Intro to Aeronautics (109-123)	MO	MA.5.D.1.C.1	describe methods to collect, organize and represent categorical and numerical data
Scientific Method(124-144)	MO	MA.5.A.3.A.1	model problem situations and draw conclusions, using representations such as graphs, tables or number sentence

Scientific Method(124-144)	MO	MA.5.D.1.A.1	describe methods to collect, organize and represent categorical and numerical data
Scientific Method(124-144)	MO	MA.5.D.1.C.1	describe methods to collect, organize and represent categorical and numerical data
Exploring Aeronautics			
2007 Mathematics			
Grade and Course Level Expectations			
Missouri Mathematics			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	MO	MA.6.A.1.B.1	represent and describe patterns with tables, graphs, pictures, symbolic rules or words
Fundamentals of Aeronautics (145-176)	MO	MA.6.A.3.A.1	model and solve problems, using multiple representations such as tables, expressions and one-step equations
Fundamentals of Aeronautics (145-176)	MO	MA.6.D.1.A.1	formulate questions, design studies and collect data about a characteristic
The Resource Center	MO	MA.6.N.1.A.1	apply and understand whole numbers to millions, fractions and decimals to the thousandths (including location on the number line)
Science of Flight	MO	MA.6.M.2.E.1	convert from one unit to another within a system of measurement (mass and weight)
Science of Flight	MO	MA.6.D.1.A.1	formulate questions, design studies and collect data about a characteristic
Integrating with Aeronautics	MO	MA.6.N.3.E.1	solve problems using ratios and rates
Integrating with Aeronautics	MO	MA.6.A.1.B.1	represent and describe patterns with tables, graphs, pictures, symbolic rules or words
Integrating with Aeronautics	MO	MA.6.A.2.A.1	use symbolic algebra to represent unknown quantities in expressions or equations and solve one-step equations
Integrating with Aeronautics	MO	MA.6.A.3.A.1	model and solve problems, using multiple representations such as tables, expressions and one-step equations
Integrating with Aeronautics	MO	MA.6.M.2.E.1	convert from one unit to another within a system of measurement (mass and weight)
Intro to Aeronautics (109-123)	MO	MA.6.D.1.A.1	formulate questions, design studies and collect data about a characteristic
Scientific Method(124-144)	MO	MA.6.D.1.A.1	formulate questions, design studies and collect data about a characteristic
Exploring Aeronautics			
2007 Mathematics			
Grade and Course Level Expectations			
Missouri Mathematics			
Grade 7			
Activity/Lesson	**State**	**Standards**	

Fundamentals of Aeronautics (145-176)	MO	MA.7.A.1.D.1	identify functions as linear or nonlinear from tables, graphs or equations
Fundamentals of Aeronautics (145-176)	MO	MA.7.A.3.A.1	model and solve problems, using multiple representations such as graphs, tables, expressions, and linear equations
Fundamentals of Aeronautics (145-176)	MO	MA.7.M.2.B.1	use tools to measure angles to the nearest degree and classify the angle as acute, obtuse, right, straight, or reflex
Wings(177-208)	MO	MA.7.M.1.B.1	identify the equivalent area and volume measures within a system of measurement (e.g., sq ft. to sq in, m^3 to c m^3)
Wings(177-208)	MO	MA.7.M.2.C.1	solve problems involving circumference and/or area of a circle and surface area/volume of a rectangular or triangular prism, or cylinder
Integrating with Aeronautics	MO	MA.7.N.3.E.1	solve problems involving proportions, such as scaling and finding equivalent ratios
Integrating with Aeronautics	MO	MA.7.A.2.A.1	use symbolic algebra to represent unknown quantities in expressions or equations and solve linear equations with one variable
Integrating with Aeronautics	MO	MA.7.G.2.A.1	use coordinate geometry to construct and identify geometric shapes in the coordinate plane using their properties
Exploring Aeronautics			
2007 Mathematics			
Grade and Course Level Expectations			
Missouri Mathematics			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	MO	MA.8.M.2.B.1	solve problems of angle measure, including those involving triangles and parallel lines cut by a transversal
Fundamentals of Aeronautics (145-176)	MO	MA.8.D.2.B.1	compare different representations of the same data and evaluate how well each representation shows important aspects of the data
Wings(177-208)	MO	MA.8.G.3.B.1	describe the relationship between the scale factor and the area of the image using a dilation (stretching/ shrinking)
Integrating with Aeronautics	MO	MA.8.A.3.A.1	model and solve problems, using multiple representations such as graphs, tables, and linear equations
Integrating with Aeronautics	MO	MA.8.G.1.A.1	describe, classify and generalize relationships between and among types of a) 2-dimensional objects and b) 3- dimensional objects using their defining properties including Pythagorean Theorem
Scientific Method(124-144)	MO	MA.8.D.2.B.1	compare different representations of the same data and evaluate how well each representation shows important aspects of the data